

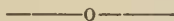
slightly emarginate at middle and not concave, broadly margined with rufous.

*Female*.—Antennæ similar in form to the male but less flattened, joints longer than wide and more triangular.

This species differs from the other *Mycterus* in our fauna by the broader antennæ of the male, the flat and emarginate last ventral segment, and the thorax not widest at base.

Specimens were collected by Mr. Crotch, at Temescal, California, on the flowers of Agave.

The last ventral segment, in the two other species of which the males are known, has the margin rather broadly reflexed so that there is a moderately deep semilunar depression formed, the posterior margin is rounded in *concolor* and broadly truncate in *scaber*. The first ventral segment at middle in the above two species is elevated in a moderately convex umbone, which in *scaber* is densely pubescent, and in *concolor* somewhat more convex, and in the only male before me entirely nude. The species just described does not appear to have this elevation of the first ventral segment.



### **Descriptions of New COLEOPTERA chiefly from the Pacific Slope of North America.**

BY J. L. LECONTE, M. D.

The present paper is prompted by a desire to render the collections of Mr. G. R. Crotch, on the Pacific Slope of North America, available to the subscribers and purchasers of his collections with the least possible delay. On examining the large number of specimens brought back by him, as was to have been expected, many new species were found; descriptions of the more interesting of these have been prepared by Dr. Horn, Mr. Crotch and myself, according as our familiarity with the respective families represented by the new species has enabled us to do this with precision. I have availed myself of the present opportunity to add the characters of a few remarkable or important species, partly from the Pacific, partly from other regions of the United States, which have been added to my collection, by the kindness of various friends.

I trust that the anomalous characters and difficult position of some of the genera herein described will absolve me for departing, in this instance, from the generally established scientific usage of publishing in systematic or faunal memoirs.

### **TETRAGONODERUS** Dej.

**T. latipennis.**—Depressed, greenish bronze, without lustre; prothorax nearly twice as wide as long, rounded and sinuate on the sides, the reflexed margin of which is pale, moderately narrowed behind, hind angles rectangular or nearly so, not at all rounded. Elytra nearly twice as wide as the prothorax, about one-third longer than wide, deeply emarginate at base, much rounded on the sides, obliquely and strongly truncate at tip; color pale, with small dark spots forming a small subapical band, and limiting also a rather broad irregular pale brown band behind the middle; there is also a broad basal spot extended a short distance along the suture; the striae are fine, somewhat deeper towards the tip; the 2d and 3d are slightly sinuous before the middle; dorsal punctures two, near the 2d stria, the posterior one just behind the middle. Antennae palpi and legs pale. Length 5.6 mm; .22 inch.

Texas; Mr. Belfrage. The elytral markings are of the same pattern as in *T. fasciatus* and *undulatus*, from which it abundantly differs by the other characters.

### **POGONUS** Dej.

**P. parallelus.**—Elongate, parallel, not very convex, testaceous, shining; prothorax but little wider than head, a little wider than long, scarcely narrowed and very feebly subsinuate on the sides behind, base finely margined, slightly rounded near the hind angles which are rectangular, feebly carinate and not prominent; dorsal line fine, deeper towards the base, which is transversely impressed and foveate each side; elytra not wider than prothorax, very long and parallel, rounded and scarcely sinuate at the tip, striae fine punctured, obliterated at the base, humeri with a short carina; marginal and submarginal striae very deep, confluent at the anterior fifth of the length; dorsal punctures two, the anterior on 3d, the posterior on 2d stria. Long 5.5 mm; .22 inch.

Texas; one female. The mentum tooth is bicuspid, and the insect has otherwise all the characters of this genus. The basal fold of the elytra is nearly straight, and the humeral carina runs obliquely backwards from it.

**P. depressus.**—Elongate, strongly depressed, testaceous; head rather large, mandibles more prominent; prothorax not wider than long, widest in front, feebly rounded on the sides, gradually narrowed behind and subsinuate, hind angles rectangular, slightly prominent, finely carinate; dorsal line entire, deeper behind, transverse impressions well marked, the posterior one rugose; basal foveae deep rugose; elytra at base wider than the base of the prothorax, basal fold strongly concave anteriorly, humeral carina forming part of the

curve, striæ deep punctured, less distinct towards the base, marginal and submarginal striæ very deep, confluent at the anterior fifth, dorsal punctures three; scutellar stria distinct. Length 5.5—7 mm; .22—.28 inch.

San Diego, California; Mr. Ulke. A singular insect, quite different in form from all others of the genus, and suggestive of a flat elongate *Bembidium* of the *Peryphus* group.

The frontal striæ are long and deep, the eyes not very prominent, though convex; the 6th and 7th striæ of the elytra are shorter and, more obliterated in front than the others; the antennæ are pubescent, with the first two joints and half of the third shining and glabrous. In five specimens, kindly loaned to me, I observe no tarsal differences worthy of mention.

*P. texanus* Chaud., is very different in appearance from the two above described. It is a short, robust, convex species of metallic blackish-green color, with the hind angles of the prothorax rectangular but not carinate, and the base, each side, with two feeble foveæ. The striæ of the elytra are faint, only the inner ones being distinct, and they are distinctly punctured in front, finer and smoother behind; the marginal and submarginal striæ are confluent in front, but the latter is nearly obsolete except towards the tip, where it is deep. Body beneath blackish brown, legs testaceous. The general appearance is that of *Bradycellus nitidus*.

I owe my specimen of this rare insect to the liberality of Baron Chaudoir, who, although having but two specimens in his cabinet, has divided them with me in order to make one of them accessible to American students.

#### **HYDROSCAPHIA**, n. g. (*Hydroscaphidæ*.)

Head moderately large, eyes lateral coarsely granulated somewhat transverse; antennæ scarcely longer than the head, inserted under the edge of the front, with seven distinct joints; 1st stouter, 2d and 3d each as long as the 1st, but narrower, 4—6 together shorter than 2d and 3d united, gradually wider, 7th about as long as the 2d and 3d united, elongate oval, scarcely wider than the 6th, with an indistinct transverse suture near the base, and another very near the tip, which is subacute.

Labrum transverse, rounded in front concealing the mandibles. Maxillæ large at the base (lobes not examined), maxillary palpi less than half as long as the antennæ, 1st and fourth joints long, 2d and 3d united equal to either of the others, not dilated; mentum trapezoi-

dal, rather large, broader than long, wider in front; ligula rather large, emarginate, palpi short, rather stout, 2d and 3d joints broader and shorter than the 1st.

Prosternum very short, hardly visible, front coxæ transversely conical, contiguous, trochantin large, cavities narrowly closed behind; middle coxæ separated, small, mesosternum protuberant; metasternum large, side pieces narrower and pointed behind, hind coxæ widely separated, laminate, the plate curved in arc of circle behind, and half as long as the 1st ventral.

Abdomen conical with six free segments, 1st large, longer than the four following united, which are equal in length but rapidly narrower; 6th equal to the four preceding united, rather longer than wide, concave and emarginate behind, with two anal filaments equal in length to the segment itself.

Legs short, front tibiæ somewhat thickened at tip; tarsi slender, rather shorter than tibiæ, apparently 4-jointed, 1st and 2d joints short, 3d equal to them united, 4th equal to the others united, claws rather long and slender.

Body small, scaphiform, rounded in front, narrowed behind, convex, elongate and shining. Head rather large; prothorax narrower in front, with deflexed angles, base truncate not margined. Scutellum small. Elytra without striæ, slightly punctulate, broadly truncate at tip. Abdomen projecting somewhat behind the elytra, with three segments visible, conical, not margined at the sides.

**H. natans.**—Oval, narrower behind, convex, black or brown, shining; head and prothorax nearly smooth, elytra sparsely and finely punctulate; antennæ and legs testaceous. Length less than .5 mm; .02 inch.

Found abundantly by Mr. Crotch, at Los Angeles in the river. Mr. Crotch informs me that this very singular insect resembles, in appearance some of the species of *Limnebius*. It greatly differs from that genus, as from all other *Hydrophilidæ* by the laminate and widely separated hind coxæ, and by the peculiar abdomen. It seems to me another of the synthetic types gradually becoming known to us among the smaller and more obscure forms, connecting several different families of the *Clavicorn* series; in this instance the *Hydrophilidæ*, *Scaphidiidæ* and perhaps the *Trichopterygidæ*. In the accepted arrangement of Coleoptera, it must be considered as indicating a new family.

**SEPIDULUM**, n. g. (*Hydrophilidæ*.)

Body small ovate convex, without lustre, prothorax greatly produced in front over the head, divided by obtuse elevated lines into large cells; elytra costate, costæ separated by two distinct rows of quadrate punctures. Head flat, densely punctured, occiput convex and feebly channelled; labrum short transverse, feebly rounded in front, mandibles small, not prominent; eyes lateral, convex, partially divided by the canthus, not very finely granulated; palpi short, last joint nearly conical. Antennæ as long as the head, 9-jointed; 1st joint about two-fifths of the whole length, elongate triangular, outer edge subsinuate, inner edge angulated beyond the middle; 2d joint nearly as wide as the widest part of the 1st joint, rather wider than long, 3—5 smaller, nearly equal in length, but gradually a little narrower, 6th transverse, triangular, inner angle acute, 7th to 9th larger, forming a loose club, as long as the other joints (except the scape) united; the 8th joint is wider, and the 9th longer than the others, the latter obtusely rounded at tip. Prothorax produced over the head into an obtuse lobe; sides dilated and rounded in front, narrowed towards the base; disc uneven, with large impressions and obtusely elevated lines, the most conspicuous being a large mediæ rhomboidal impression, extending almost from tip to base. Elytra wider than prothorax, gradually wider behind, and obtusely rounded; suture, margin and three costæ elevated, separated by two rows of quadrate punctures; between the outer costa and the margin is a large tubercle about one-third from the base; there is also a broad oblique transverse impression behind the base, which interrupts the 2d costa. Prosternum very short in front of the coxæ which are transverse and contiguous; middle and hind coxæ also contiguous; legs roughly and densely punctured; tibiæ moderately slender, feebly dilated, without spurs; tarsi short (hardly one-third the length of the tibiæ), apparently 4-jointed, claws small.

The abdomen is deeply withdrawn in the cavity of the elytra; it is flat, and I can see but four ventral segments, the last is rounded at tip, and vaguely impressed each side; there may, however, be five segments, the 1st being invisible on account of the prominence of the metasternum and the contraction of the abdomen.

The genus is named in allusion to the resemblance in form of the prothorax to that of *Sepidium*. The characters are altogether anomalous, but seem to resemble those of *Hydrophilidæ* rather than any other family, approaching more nearly perhaps to *Ochthebius*.

**S. costatum.**—Ovate convex, brown, opaque; prothorax produced in front over the head, dilated at the sides, narrowed behind, with several impressions and obtusely elevated lines, at the middle with a large elongate rhomboidal impression; elytra finely rugose, with suture, margin and three discoidal costæ elevated, an oblique discoidal impression behind the base, and a large tubercle near the side in front of the middle; interspaces with two rows of small quadrate punctures. Length 2 mm; .075 inch.

Texas; Mr. G. W. Belfrage. Though not found on the Pacific Slope of the continent, the characters are so extraordinary that I have included this species in the present paper as a proper companion to the other singular forms which are here described.

### TRIGONURUS Muls.

**T. Crotchii.**—Dark chestnut-brown, shining, depressed, head and prothorax sparsely punctured, the latter one-half wider than long, narrowed and rounded on the sides in front of the middle, tip emarginate, base truncate, hind angles rectangular, disc feebly channelled with a large shallow coarsely punctured basal triangular impression each side; elytra twice as long as the prothorax, each with six deep strongly punctured striae, the seventh is fainter, abbreviated in front about one-fifth from the base, and the eighth does not reach the middle; abdomen sparsely punctured. Length 4.5 mm.

Vancouver Island and Sierra of California; under pine bark. The characters of this genus, so peculiar as almost to warrant its establishment as a separate tribe, have been fully pointed out by Mr. Kraatz (Ins. Deutschl. ii., 805), and the question of its affinities need not be here discussed. In comparison with the figure of the European *T. Mellyi*, given by Duval (Gen. Col. Eur. ii., pl. 23, f. 113), this species differs conspicuously by the prothorax being transverse, and more rounded on the sides before the middle, the color is also less blackish and more testaceous, and the abdomen longer and narrower.

**T. caelatus.**—Brown, shining, depressed; head deeply punctured, transverse frontal impression strongly marked, neck smooth; prothorax coarsely and sparsely punctured, punctures more dense in the triangular shallow basal impressions, and more distant each side of the dorsal channel, which is deep, but does not extend to the base; behind it is a vague V-shaped impression, sometimes obsolete; elytra with close set rows of large punctures, which do not form grooves or striae (as in the preceding species); abdomen strongly but not coarsely punctured. Length 18 inch; 4.5 mm.

Sierras of California, under pine bark; abundant. This species does not differ in size or form from the preceding, but is easily known by the much coarser sculpture. The prothorax is less transverse, being perhaps one-third wider than long, and more broadly rounded on the sides. It differs from *T. Mellyi* (according to the figure above cited), by the elytra not wider the prothorax, and by the longer abdomen.

**ZALOBIOUS**, n. g. (*Oxytelini*.)

Body elongate depressed, opaque; head large, prolonged behind the eyes, suddenly and moderately constricted at base; mandibles slender, curved, acute, armed with a large acute tooth; labrum not emarginate; maxillary palpi very slender, last joint more than twice as long as the preceding; antennæ not geniculated, 11-jointed, 1st and 2d joints thicker, the 1st pyriform, the 2d globose; 3d one-half longer than the 4th, very slender, 4—6 equal in length, slender, 7—10 triangular, gradually slightly wider, 11th oval, somewhat obtusely pointed, not as large as the 10th; eyes small. Prothorax with narrow apex, very suddenly and strongly dilated on the sides, acutely angulated and subspinose, then rapidly narrowed with a concave outline, base broadly rounded, not wider than the tip; disc with two faint dorsal grooves, a broad anterior impression and one on each side, side margins distinctly reflexed; elytra quadrate, emarginate at base humeri rounded, tip squarely truncate, sides distinctly margined, with traces of longitudinal lines, abdomen broadly margined at the sides, gradually narrowed and pointed behind, less than twice as long, as the elytra; anal appendages short, with a short terminal bristle. Legs slender, tarsi rather short, 5-jointed, joints 1—4 gradually a little shorter, 5th longer than the two preceding united.

**Z. spinicollis.**—Depressed, dull black without lustre, densely confluent punctured; elytra with faint traces of longitudinal elevated lines; outer joints of antennæ, palpi and tarsi brownish. Length 5.6 mm.

Vancouver Island; in moss exposed to dripping water. The body is entirely without lustre, except on the abdomen, which is slightly shining and less densely punctured. I have not dissected this insect, so that the description of the mandibles indicates only what is seen beyond the labrum. It belongs to the group *Coprophili* of the *Oxytelini*.

**TRICHONYX** Chaudoir.

**T. striatus.**—Chestnut-brown, shining; head with the usual deep angulated impression, and two large foveæ between the eyes; prothorax with a fine dorsal groove dilated into a fovea near the tip, which it does not reach, crossed near the base by a deep transverse groove, which is dilated each side near the hind angle; sides much rounded in front, narrow behind the middle; elytra wider than the prothorax, not convex, sparsely punctured, with a very deep sub-sutural stria, two approximate discoidal striæ from base for three-quarters the length, and a short groove from the humerus; humeral plica elevated; abdomen smooth, narrowly margined. Length .08 inch; 2 mm.

Vancouver Island. The antennæ are stout, scarcely reaching the



base of the prothorax, with the joints rounded, 1st and 2d thicker, 3d—8th nearly equal, 9th and 10th gradually a little larger and transverse, 11th large, oval, obtusely pointed.

#### TYCHUS Leach.

**T. cognatus.**—Dark brown, sparsely pubescent; elytra, feet and antennæ paler, the latter with joints 3—8 rounded, equal, ninth and tenth larger also rounded, 11th as long as the two preceding, oval, pointed; prothorax with a very small narrow fovea near the base, convex, a little longer than wide; elytra convex, with the discoidal stria extending about half the length. Length .06 inch; 1.5 mm.

Vancouver Island. Of the same size and form as the Californian *T. tenellus* Lec., but differs by the 9th and 10th joints of the antennæ being larger, about twice as wide as the 8th.

#### DERMESTES Linn.

**D. signatus.**—Elongate oval, convex, blackish-brown, clothed with brown pubescence, which is more dense from the base of the elytra backwards to behind the middle; near the base on each is a small dark angulated mark composed of three spots. Length .22—.32 inch; 5.6—8 mm.

Widely distributed in Northern and Western America; Hudson Bay Territory, Vancouver Island and California. Quite distinct from *D. lardarius* by the uniform brown color of the pubescence, and by the finer punctuation of the upper surface; the dense pubescence of the elytra sometimes extends nearly to the tip; in other specimens only a little behind the middle, but in all it is prolonged on the disc farther than at the suture and side.

#### TROGODERMA Lestr.

**T. Belfragei.**—Elongate, subcylindrical, black, clothed with scattered grayish-white hairs; head and prothorax very densely, elytra less densely though rather closely punctured, with two narrow undulating bands of white and fulvous hair, the 1st about one-quarter from the base, the other one-quarter from the tip, base of antennæ, tibiæ and tarsi brown. Length .22 inch; 5.5 mm.

Texas; Mr. Belfrage, one specimen. Much more elongate than our other species. The club of the antennæ is perfoliate, composed of five joints, and is about as long as the preceding joints united.

#### KALISSUS, n. g. (*Micropeplidæ*.)

Body smooth, shining, sides of prothorax broadly flattened, elytra with two pairs of approximate striæ widely separated behind converging towards the base; abdomen conical not margined; mesosternum moderately wide, deeply excavated for reception of the prosternum; metasternum with an oblique impressed line (somewhat as in *Coccinella*), epimera large, visible as a triangular space at the sides behind.



This remarkable insect has the form and all the essential characters of *Micropeplidæ* (9-jointed antennæ with solid club, 3-jointed tarsi, widely separated hind coxæ, etc.), but differs remarkably by its sculpture; the elevated lines of the head, prothorax and abdomen are quite absent, and the costæ of the elytra are represented by only two pairs of impressed lines which converge towards the base, with interspaces becoming slightly elevated. The antennæ are longer and more slender than in *Micropeplus*.

The last ventral segment in the ♂ is longitudinally impressed, the middle and hind tibiæ are bent inwards near the tip.

**K. nitidus.**—Broadly oval, rounded in front, obliquely narrowed behind the elytra; head with a triangular impression on the vertex, connected with a transverse frontal line; prothorax strongly narrowed in front, twice as wide as long, rounded on the sides, bisinuate at base, hind angles not rounded, disc smooth, very convex, sides very broadly depressed, alutaceous; elytra with two pairs of lines converging towards the base, interspaces costiform at the base, but becoming flat behind; disc convex, apical margin depressed, humeri not rounded; abdomen with five exposed segments, smooth, conical, not margined, about two-thirds as long as the elytra. Length 1.5 mm.

Vancouver Island; Mr. Crotch. On pebbly margins of a small lake near Gold Stream, in July.

#### GEORYSSUS Latr.

**G. californicus.**—Dull black, prothorax finely channelled, a little longer than wide, anterior lobe separated by a more distinct transverse impression than in *G. pumilus* Lec., and more deeply rugose; elytra with rows of quadrate punctures which are narrower than the intervening spaces. Length .07 inch; 1.8 mm.

California; Dr. Horn. This species is mentioned in Mr. Crotch's Check List, from the collections of Dr. Horn and myself, but has not been described. It is quite distinct from *G. pumilus* by the smaller and more distant rows of punctures of the elytra. The last named species has an extensive range, being found in Kansas, Canada and Massachusetts.

#### THROSCINUS, n. g. (*Parnidæ*.)

Body elongate oval, obtuse at each end, clothed rather densely with short suberect pubescence. Head protected beneath by a large lobe of the prosternum; eyes oval, rather finely granulated, not hairy; antennæ inserted in front of the eyes, 11-jointed, slender, nearly as long as the prothorax; 1st and 2d joints stouter, not longer than the 3d and 4th united, which are slender, 5th a little wider and shorter, 6—10 a little wider, subtriangular, 11th oval, not longer. Palpi with

the last joint oval, acute. Prothorax wider than long, gradually narrowed from the base forwards, transversely very convex in front, base bisinuate. Scutellum rather large, triangular. Elytra convex, not wider than the prothorax, punctures fine, not arranged in rows. The other characters present nothing worthy of record.

**T. Crotchii.**—Black with a bronze lustre, finely pubescent with short suberect gray hair, finely and sparsely punctulate. Length .10 inch; 2.5 mm.

A singular insect found by Mr. Crotch, at San Diego. Differs remarkably from *Lutrochus*, to which it is otherwise allied, by the longer and slender antennæ and elongate form of body. It bears a general resemblance to *Throscus*, in appearance.

#### ELMIS Latr.

**E. divergens.**—Elongate oval, dark green-bronzed, finely pubescent; prothorax one-half wider than long, gradually narrowed and rounded on the sides from the base, disc convex distinctly punctured, basal lines extending as far as the middle, slightly divergent outwards, base emarginate in front of the scutellum, not foveate; elytra elongate scarcely wider than the prothorax, nearly parallel on the sides and strongly margined, disc convex, striæ composed of close set quadrate punctures, scarcely finer at the apex, interspaces obsoletely punctulate; tarsi brownish. Length .10 inches; 2.5 mm.

California; Mr. Crotch. Narrower than *E. ovalis*, with the sides of the elytra nearly straight; quite distinct from all other species I have seen by the basal lines of the prothorax diverging outwards.

**E. corpulentus.**—Ovate, convex, thinly and finely pubescent, greenish-black; prothorax somewhat wider than long, feebly channelled, scarcely punctulate, narrowed and rounded from the base, front angles deflexed and broadly impressed, basal lines extending to the middle, very deeply impressed, not divergent, base emarginate in front of the scutellum, not foveate. Elytra wider than prothorax, very convex behind, much rounded on the sides, striæ deep, punctured in front, finer and less punctured behind; interspaces feebly punctulate. Length .10 inch; 2.5 mm.

British Columbia; Mr. Crotch. In one specimen the elytra have a broad basal band and large apical spot yellow; the antennæ joints 1—8 and the legs are also testaceous.

**E. seriatus.**—Elongate oval, black with a greenish reflection; prothorax wider than long, distinctly punctured, narrowed, and feebly rounded from the base, basal lines extending to the middle, with a fovea near the anterior extremity of each, base with two small foveæ near the scutellar emargination. Elytra scarcely wider than the prothorax, nearly parallel on the sides, not very convex, striæ composed of oval rather distant punctures, interspaces obsoletely punctulate; a large indistinct subhumeral yellowish blotch extends to the sides but not to the suture, last joint of tarsi yellowish. Length .075 inch; 1.8 mm.

One specimen, California; Mr. Crotch. Narrower than *E. 4-maculatus* Horn, and quite different by the elytral striæ not impressed and more distantly punctured.

***E. foveatus*.**—Elongate, black; prothorax longer than wide, feebly narrowed in front, subsinuate on the sides, discoidal lines entire sinuate, disc with a deep oblique impression, a broad transverse one and a large medial fovea; elytra with striæ composed of large approximate punctures, 4th and 6th interspaces feebly carinate, the former extending three-quarters the length of the elytra. Length .08 inch; 2 mm.

Two specimens without locality collected by Mr. Crotch. Allied to *E. pusillus* Lee., and *similis* Horn, but differs by the less strongly carinate elytra. It is also a larger and less elongate species with the medial fovea of the prothorax more distinct from the transverse impression.

***E. vulneratus*.**—Rather stout, brownish-black, slightly pubescent; prothorax feebly punctulate, scarcely longer than wide, slightly narrower in front, broadly rounded on the sides, discoidal lines entire, posterior impressions nearly transverse, scarcely oblique, feebly separated at the middle, base bifoveate near the scutellum; transverse impression deep entire, disc in front convex; elytra at base wider than the prothorax, sides nearly straight, then obliquely narrowed and slightly prolonged at tip, striæ rather finely punctured, interspaces sparsely punctulate, 4th and 6th finely carinate; antennæ and legs dark testaceous. Length .08 inch; 2 mm.

Texas; Mr. Belfrage. One specimen. Not quite so stout as *E. ovalis*, but nearly so.

***E. caesus*.**—Elongate, parallel, testaceous, shining, slightly pubescent; head somewhat darker, prothorax scarcely longer than wide, nearly smooth, sides finely crenate, nearly straight in front; rounded near the hind angles, discoidal lines not very deep, obliterated in front, transverse impression very deep, disc convex before and behind; elytra very little wider than the prothorax; striæ composed of large punctures, becoming smaller and obliterated towards the tip, 6th interspace scarcely carinate. Length .05 inch; 1.3 mm.

Texas; Mr. Belfrage. A very distinct species of uncommonly small size.

#### **PACHYPLECTRUS, n. g. (*Hybosorini*.)**

Body ovate, convex, sides and under surface setose with long erect hairs, above smooth and glabrous. Mandibles broad, outer edge sharp, not rounded but obtusely angulated, labrum short rounded in front. Antennæ with the 1st joint of the club completely surrounding the others; eyes not divided, mentum not emarginate; head with a broad sinuated transverse impression and a frontal tubercle; prothorax wider than long, narrower in front, nearly smooth, finely margined at tip, sides and base; elytra very convex, gradually a little

wider than the prothorax, then obtusely rounded; smooth with a deep sutural stria and two marginal striæ which are abbreviated in front, the inner one being fainter and shorter. Legs very stout, front tibiæ three-toothed, not serrate; middle and hind tibiæ thick, with the transverse crest and apical margin well developed; spurs of middle tibiæ long, of the hind pair short, broad and obtuse, the outer one being the larger. Tarsi, front as long as the tibiæ, slender, joints 1—4 equal; middle shorter than the tibiæ, joints 1—4 decreasing a little in length; hind pair only half the length of the tibiæ, stouter, joints 1—4 slightly decreasing in length; claws slender, simple.

**P. laevis.**—Chestnut-brown, shining; head with a frontal tubercle and transverse broad impression; prothorax and elytra smooth, the latter with a deep sutural and two marginal striæ; margins of body, under surface and legs clothed with long erect hairs. Length .26 inch; 6.5 mm.

One specimen, Sta. Barbara, California; Mr. Croteh. Remarkably different from all the species of the tribe thus far described by the absence of the elytral rows of punctures.

#### PELIDNOTA M'Leay.

**P. lugubris.**—Black, with a feeble metallic tinge; prothorax sparsely punctured, more finely and densely towards the sides, which are rounded, narrowed in front of the middle, but only slightly so towards the base, angles rectangular, slightly prominent; elytra dull, finely alutaceous, with scarcely perceptible traces of distant rows of punctures. Length .7—.9 inch; 17.8—22.7 mm.

♂.—With the front tarsi thickened, the inner claw dilated at base, and the club of the antennæ longer.

Arizona; Mr. C. V. Riley; also in the collection of Mr. Ulke. Related to *P. Lucæ*, but quite different by the nearly black color, the more finely punctured prothorax, which is less rounded on the sides, and less narrowed towards the base, and finally by the rows of punctures on the elytra being almost obliterated. The head is alike in both species, densely punctured, with the elypeus narrowly margined, and at the tip subtruncate, a little more distinctly so in the present species.

#### CREMASTOCHILUS Knoch.

**C. retractus.**—Brownish-black, not shining; prothorax wider than long, coarsely punctured, narrowed in front, broadly rounded on the sides, foveate inside of the front angles, foveæ not extending to the apical margin, hind angles suddenly and strongly retracted, acute, surrounded by a deep groove; elytra flattened, with the usual sculpture of large shallow punctures, not closely placed. Length .44 inch; 11 mm.

Texas; Mr. Belfrage. One specimen. The mentum is deeply and

broadly incised behind. This species is allied to *C. canaliculatus*, but the prothorax is more convex, the foveæ adjacent to the front angles do not extend to the apical margin and the hind angles are much retracted, so that the base is fully one-fourth narrower than the middle of the prothorax, as in *C. varidosus*, to which it in other respects has no resemblance.

**C. crinitus.**—Brownish-black, not shining, thinly clothed above with very long yellowish hairs; prothorax rather flat, very coarsely punctured, sides rounded, subsinuate towards the base, hind angles rather large, elevated, smooth, circumscribed by an impression, inside of the front angles is a fovea extending to the apical margin; elytra flattened, with the usual sculpture and traces of broad longitudinal grooves. Length .5 inch; 13 mm.

One specimen, Utah? The mentum is obtusely pointed behind, and not incised. This species is related to *C. Knochii*, but the larger hind angles of the prothorax, the more broadly rounded sides, which are distinctly crenate, the less convex disc, and above all the long hairs distinguish it at first sight. The legs are as in *C. Knochii*.

#### SCAPTOLENUS Lec.

**S. estriatus.**—Brown, pubescent, hairs on prothorax, base of elytra and breast longer; elytra rather finely and densely punctured, without any appearance of striæ. Length .53 inch; 13 mm.

One immature specimen from Texas. Very different from *S. Lecontei* Sallé (*femoralis* † Lec.), by the elytra having no vestige of striæ; otherwise it resembles that species, but is smaller, with the prothorax broader and the 3d joint of the antennæ more than one-half as long as the 4th.

In the Mexican *S. femoralis* the elytra are striate, but the prothorax is still broader and much more rounded on the sides, and the 2d and 3d joints of the antennæ are nearly equal, together a little more than one-half as long as the 4th.

#### BRACHYPSECTRA, n. g. (*Rhipiceridæ*.)

Body elongate, rather flattened, shining, punctured and pubescent; elytra strongly margined, feebly striate; head moderate, front convex, and mouth inflexed; labrum small, mandibles not prominent, palpi small and slender; antennæ inserted in triangular excavations, not distant, 11-jointed, joints 1—4 subequal, 3d a little longer, 5—10 triangular, transverse forming a serrate elongate mass, 11th larger, appendiculate, eyes large, oval, finely granulate; prothorax transverse, trapezoidal, side margin distinct, hind angles acute subcarinate; prosternum broad, feebly rounded in front, distinctly prolonged behind

the coxæ, inflexed and received into the excavated mesosternum; front coxæ transverse, without distinct trochantin, side pieces of mesosternum extending to the coxæ, which are subquadrate, not prominent and separated by the narrow mesosternum; side pieces of metasternum rather wide, parallel; hind coxæ extending nearly to the side margin, narrow, feebly sulcate behind, coxal lamina almost obliterated; abdomen with five free and equal ventral segments; legs slender, spurs very small, tarsi as long as the tibiæ, slender, last joint without onychium, claws simple; epipleuræ narrow, extending to the apex; scutellum rather large, rounded behind.

A genus of difficult position, having a general resemblance to *Zenoa*, but somewhat broader, with the mouth more inflexed, and the mandibles smaller. It differs, moreover, from the other genera of the family to which I have referred it, by the absence of onychium, and by the trochantin of the front coxæ being indistinct. It also differs more essentially by the prosternum being prolonged behind the coxæ, into an inflexed point received into an excavation of the mesosternum. It cannot be referred elsewhere in the series, unless it be to the tribe *Eubriini* of *Dasyllidæ*, to the species of which it has no resemblance in appearance, nor in the more special characters.

**B. fulva.**—Yellowish-brown, shining; head punctured, feebly channelled, transversely impressed between the eyes; prothorax transverse, trapezoidal, punctured, feebly channelled, hind angles prolonged, acute, subcarinate; elytra slightly wider than the prothorax, strongly margined, punctured, feebly striate, obtusely rounded behind; beneath shining, finely punctured and pubescent. Length .20 inch; 5 mm.

Texas; Mr. Belfrage. No sexual differences observed.

**ARAEOPUS**, n. g. (*Dasyllidæ*.)

Body elongate, oval, convex, rather acute before and behind, finely punctured, densely clothed with prostrate hair. Head deflexed, moderate in size, front convex, with the transverse suture distinct, epistoma entirely corneous. Mouth rather prominent; labrum convex, broader than long, rounded and feebly emarginate in front. Mandibles curved, acute at tip, visible beyond the labrum. Antennæ inserted upon the front at the sides behind the base of the mandibles, but not under a prominence, 11-jointed, rather stout, extending a little beyond the base of the prothorax, subserrate; 1st joint stout, shorter than 3d; 2d globose, 3d subtriangular a little longer than the 4th; 4—10 equal in length; 11th a little longer; eyes rounded, finely granulated; maxillary palpi not dilated, last joint a little longer;



labial with last joint somewhat triangular; mentum large, trapezoidal. Prothorax wider than long, very much narrowed in front, rounded and overhanging the head at tip, rounded on the sides near the hind angles, which are acute; base bisinuate. Scutellum rounded, concave. Elytra a little wider at base than the prothorax, rounded at the base, slightly enlarged for two-thirds the length, then obliquely narrowed; side margin distinct, wider towards the tip; striæ faint, the sutural deep towards the base. Prosternum narrow, prolonged behind the coxæ, and received into the mesosternum, which is triangularly incised in front and rather narrow between the coxæ. Front coxæ transverse, prominent, with large trochantin; middle coxæ with narrow trochantin extending to side pieces; hind coxæ laminate, gradually dilated inwards. Abdomen with the 1st ventral shorter and the 5th longer than the others which are equal. Legs slender, tarsi not lobed, a little shorter than the tibiæ, joints 1—4 equal, 5th equal to the three preceding united, claws simple, onychium not visible.

Were it not that the front coxæ and insertion of the antennæ forbid, this insect would be referable to the *Eucnemidæ*, to which family it has much resemblance in appearance.

The affinities are of course with *Lichas* and *Stenocolus*. From both it differs by the more convex front, the less elongate and less serrate antennæ, the more prominent front coxæ, the less prolonged excavation of the mesosternum and the 1st ventral segment much shorter; it differs besides by the prothorax being produced over the head, and not margined at the sides. In *Lichas* moreover the onychium is conspicuous, and in *Stenocolus* there is a series of smooth oblique scars on each side of the ventral segments.

**A. monachus.**—Blackish-brown, densely clothed with short yellow-brown pubescence, very finely punctulate; prothorax with two round basal foveæ, between which the base is depressed; elytra faintly punctured in striæ, sutural stria deep for one-quarter the length from the base. Length .4 inch; 10 mm.

Oregon; Lord Walsingham. The basal foveæ of the prothorax are nearer together than to the sides.

**DICRANOPSELAPHUS** Guérin.

**D. Edwardsii.**—Broadly ovate, not very convex, finely pubescent, black; elytra testaceous with feeble grooves which are irregularly punctured, interspaces as wide as the grooves, nearly smooth; prothorax bisinuate at base, much wider than long, sides and tip rounded in the arc of a circle, margin concave, reflexed, transparent and white along the front as far as the middle; scutellum large, black; legs brownish testaceous; antennæ black, second joint very small. Length .22 inch; 3—4.3 mm.



♂.—With the 3d and following joints of the antennæ bearing a long process, which is basal in the 3d, medial in the 4th and 5th, but nearly apical in the others.

♀.—Larger and stouter, elytra nearly black, antennæ serrate.

Found abundantly by Mr. Crotch, at Santa Barbara, flying about bushes near a stream. Of thirty-three individuals before me thirty are males and only three females. The larva is subaquatic, and according to Mr. Crotch resembles in appearance those of *Psephenus* and *Helichus*. I have adopted the name affixed to the species by Mr. Crotch in honor of Mr. Henry Edwards, of San Francisco.

#### MICROPHOTUS Lec.

**M. angustus.**—Elongate, brown testaceous, elytra darker, roughly and densely punctured, elevated lines distinct, sides concave and broadly margined near the base; scutellum and prothorax pale, the former channelled, the latter rough longer than wide, truncate at base, rounded in a semiellipse on the sides and tip, disc broadly convex in front, margined very broadly at the sides, and more narrowly at the tip. Length .28—.4 inch; 7—10 mm.

♂.—Eyes very large, convex, approximate, palpi long; antennæ 9-jointed, 9th joint with a small subulate point at tip; elytra long, entire; last dorsal segment bisinuate at tip, last ventral produced into a long process at tip; genital segment with slender lobes.

♀.—Eyes small, distant, head narrow, palpi less elongate; antennæ 8-jointed with a small terminal subulate protuberance; elytra entirely wanting, the scutum of the mesothorax being an undivided plate; apical process of last ventral short.

Mariposa, Oregon; Dr. A. Thevenet. This species though much narrower in form, is similar in sculpture to *M. dilatatus* Lec., from Lower California. The female of the last named species is unknown, so that the discovery of that sex in the present instance is more important. The difference in the number of antennal joints is a remarkable and hitherto unknown character in the family.

#### MATHETEUS, n. g. (*Lampyride*.)

Body not convex, rather lyeiform, above confluent punctured, strongly margined. Head concealed under the prothorax, short and broad, eyes distant, convex, moderate in size, finely granulated; antennæ inserted just in front of the eyes, distant, 11-jointed, strongly pectinate, 1st joint triangular, hardly longer than wide, 2d shorter, as wide as long, 3d triangular, inner angle acute; 4—10 triangular, each with an internal process as long as the joint and arising about the middle, or beyond the middle; 11th joint flat, acutely sinuate near the tip, which is also acute. Front concave behind the antennæ, convex in front of them; labrum transverse, broadly rounded in front, dis-

tinctly separated from the front. Mandibles acute; palpi moderate, maxillary longer, last joint subtriangular obliquely rounded at tip. Prothorax transverse, lateral and apical margin very wide and reflexed, irregularly rounded, base broadly rounded, hind angles obtuse, rounded. Scutellum triangular, small, rounded behind. Elytra with rounded humeri, wider from the base for three-quarters the length, then broadly rounded, disc rather flat, with four narrow elevated lines, suddenly declivous near the humeri, side margin broad and reflexed; epipleuræ wide. Front coxæ conical contiguous; middle coxæ quadrate, not large, contiguous; hind coxæ narrow, transverse, contiguous. Legs slender, not compressed, trochanters on the inner side of the thighs, tarsi with the joints 1—4 gradually shorter, 3d and 4th slightly lobed beneath, not emarginate, 5th slender, claws feebly dilated near the base. Abdomen (♀) with seven ventral segments, 7th smaller, rounded at tip; last dorsal broadly rounded at tip; genital segment not prominent; no phosphorescent spots.

A singular genus, which must be placed probably near *Calyptcephalus*, but differing from it as from all *Lampyrini* by the widely distant antennæ, broader mouth and better developed labrum.

**M. Theveneti.**—Black, without any tinge of brown; prothorax and elytra dull orange, the former with two approximate smooth spots, occupying the disc, and separated by a narrow dorsal channel, margin punctured; elytra densely and roughly punctured, with four fine elevated lines, the third of which commences on the humerus which is very prominent. Length .45 inch; 11 mm.

One ♀ collected at Mariposa, Cal., by Dr. A. Thevenet, and kindly given me by his brother, Mr. J. Thevenet, of Paris.

#### **PHENGODES** Hoffm.

**P. integripennis.**—Ferruginous yellow, elytra blackish-brown, finely pubescent and scabrous, as long as the abdomen, rounded at tip, not dehiscent, sides with narrow reflexed margin. Length .65 inch; 11—16.5 mm.

California. I have seen several males of this species, which resembles in all characters, except the length of the elytra, our two Eastern species. The labrum is, however, more suddenly and deeply emarginate, and the seventh ventral is rather cleft than emarginate, with a short obtuse process at the base of the cleft.

#### **MASTINOCERUS** Solier.

**M. texanus.**—Testaceous, abdomen dusky except at tip, opaque pubescent; head as wide as the prothorax, finely and densely punctured; prothorax a little longer than wide, front angles rounded, hind angles rectangular, finely and densely punctured; elytra one-third as long as the abdomen, dehiscent, rounded at tip. Length .25 inch; 6 mm.

Texas; Mr. Belfrage. Female unknown. Varies of a blackish color with the occiput and tip of abdomen testaceous. After examining the type of *Mastinocerus*, in the Paris Museum, I see no reason for separating this as a distinct genus. In the Chilian type the last joint of the antennæ has been broken off, and the 10th joint, by want of sufficient care has been regarded as the last joint, which has been, therefore, absurdly described as bifurcated, a form which I am free to say that our present knowledge leads us to believe does not exist in *Coleoptera*. In the Texan species above described the antennæ are 11-jointed, the 1st joint as long as the 2d and 3d, which are simple, the joints 4—10 slightly increasing in length, each with two long basal hairy cylindrical processes, about three times as long as the joint itself; 11th joint simple, as long as the branches of the 10th joint; maxillary palpi nearly as long as the head, last joint large, moderately dilated with the palparium elliptical; eyes large, finely granulated. The seventh ventral segment is emarginated almost to the base; the last dorsal is subtruncate or broadly rounded, with two shallow longitudinal furrows.

#### SILIS Charp.

The following table will enable the species of this genus to be easily distinguished; 8 and 9 may be perhaps variations in color of one species.

- A.—Base of prothorax broadly rounded, sides excavated into a deep round cavity near the base; both angles of the excavation acute; ante basal appendage acute, spiniform.....1. **spinigera**.
- B.—Base of prothorax lobed, excavation of hind angles partly basal, angles therefore not very distinct, though acute, anterior margin of excavation sinuate with two prominent rounded angles; ante-basal appendage acute, spiniform, directed obliquely backwards.
- Basal excavations of prothorax moderate, (color black, disc of prothorax yellow).....2. **difficilis**.
- Basal excavations of prothorax larger (elytra and prothorax pale).  
3. **flavida**.
- C.—Base of prothorax lobed, deeply foveate, inside of the hind angles, which are therefore more prominent and acute; incisure near the base moderately deep, with the anterior angle rounded; ante-basal process compressed, rounded at tip.
- Basal impressions of prothorax very deep, hind angles strongly carinated (upper surface pale).
- Incisure of hind angle deep, appendage straight .....4. **cava**.
- Incisure of hind angles broad, appendage curved.....5. **pallida**.
- Basal impressions of prothorax much smaller; hind angles feebly carinated; (black, prothorax more or less yellow).

Incisure of hind angles deep, appendage long..... 6. **percomis.**

Incisure of hind angles shallow, appendage short..... 7. **vulnerata.**

D.—Base of prothorax not lobed, broadly reflexed, as usual; excavation entirely lateral, anterior angle of incisure nearly rectangular, hind angle long, acute, produced into a slender filament which is bent forwards.

Elytra and prothorax pale, the latter sometimes with a black vitta.

8. **lutea.**

Black, prothorax yellow, sometimes with a black dorsal vitta... 9. **filigera.**

**S. spinigera.**—Elongate, testaceous, head, antennæ, elytra towards the tip, and legs more or less dusky; prothorax smooth, shining, wider than long, convex, strongly margined, deeply excavated and emarginate each side near the base, angles before and behind the emargination acute; armed in addition with a slender sharp spine near the hind angles; elytra finely scabrous and pubescent; antennæ with the 2d joint small, 3d equal to the 4th. Length .28 inch; 7 mm.

One ♂ Oregon. The basal excavations of the prothorax are large, deep and rounded.

**S. flavida.**—Elongate, black, prothorax, elytra and feet yellow, the former nearly twice as wide as long, sides straight oblique, front margin broadly rounded, feebly reflexed, disc convex, hind margin blackish strongly depressed and reflexed, deeply foveate each side; hind angles very deeply incised, anterior process narrow acute; elytra dusky towards the tip and sides, finely not deeply punctured; tarsi and hind thighs dusky; antennæ black (♂) as long as the body, 2d joint small, 3d and following ones equal. Length 6 mm.

Two ♂, California, at Lake Tahoe. Similar in appearance to *S. pallida*, but quite different by the deep incisure of the hind angles of the prothorax; penultimate ventral segment, as usual, deeply and widely emarginate.

**S. cava.**—Elongate, pale testaceous, prothorax much wider than long, sides oblique, deeply emarginate near the base, angle in front of emargination well defined, obtuse, basal angle produced into a compressed process which is rounded at tip; disc strongly margined, deeply channelled, very deeply excavated at the base each side; elytra finely scabrous and pubescent; occiput blackish; antennæ and legs more or less dusky, the former slender with the 2d joint small, 3d equal to the 4th. Length .2 inch; 5 mm.

One ♂, Oregon. Smaller than *S. pallida* with the sides of the prothorax oblique not rounded and the basal foveæ much deeper.

**S. vulnerata.**—Less slender, black, prothorax strongly margined, broadly rounded on the sides, broadly excavated each side at the base, emargination not very deep, angle in front obtuse, basal angle obliquely carinate, process short and rounded; disc feebly channelled with a reddish-yellow round spot each side; elytra finely scabrous and pubescent; antennæ short, 2d joint small, 3d equal to the 4th. Length .25 inch; 6 mm.

One ♂, Oregon. Very distinct by the short obtuse process of the hind angle of the prothorax.

**S. lutea** Lec., Journ. Acad. Nat. Sc. 2d, v. 333; *pallens* || Lec., Proc. Acad. Nat. Sc. Phila., v. 339.

This species which has been incorrectly placed as a synonym of *S. pallida* Mann, is smaller and different by the antennæ being stouter, and the process of the basal angle of the prothorax longer filiform and bent just as in *S. filigera*.

*S. pallida* Mann, differs essentially by the basal excavations of the prothorax being separated from the emargination by an elevated oblique line which runs to the hind angle so as to render it carinate; the angle in front of the emargination is obtuse and the process behind the emargination is very near but separate from the small hind angle, compressed, deflexed and curved; sides broadly rounded. The antennæ are slender.

**S. filigera.**—Elongate, black, prothorax bright yellow, shining, very convex, finely sparsely punctulate, strongly channelled, twice as wide as long, apical margin rounded, strongly reflexed, basal margin deeply excavated and strongly reflexed; hind angles incised, anterior process not truncate, hind process filiform, suddenly bent forward; elytra more strongly punctured; antennæ (♂) as long as the body, 2d joint small, 3d nearly as long as the 4th. Length 3.6 mm.

One ♂, Santa Barbara, California. Narrower than *S. percomis* and quite different by the prothoracic characters. A specimen from Vancouver which I refer to this species has the front and hind margins and dorsal spot of the prothorax black.

#### DITEMNUS Lec.

**D. obtusus.**—Robust, black, prothorax twice as wide as long, smooth, sides rounded and sinuate, red, margins blackish, strongly reflexed; elytra rather finely scabrous, punctured; antennæ feebly serrate, 2d joint short, 3d equal to the following. Length 4 mm.

♂.—Sides of the prothorax suddenly rounded, deeply incised near the base, anterior process obtuse with a small cusp projecting backwards, posterior process rounded at tip, base excavated each side, medial part forming a lobe more suddenly limited than in *D. bidentatus*; antennæ two-thirds as long as the body.

♀.—Sides of prothorax less suddenly rounded, subangulated and feebly sinuate near the base, which is not lobed, hind angles obtuse, rounded; antennæ one-half as long as the body.

Los Angeles and Saucelito, California. Larger and more robust than *D. bidentatus*, and remarkably different by the sides of the thorax being rounded and the anterior process obtuse.

**TRICHODES** Herbst.

**T. bimaculatus.**—Dark blue, pubescent with long, soft, erect yellow hair; prothorax convex, rugosely punctured with an indistinct dorsal line; elytra thickly but not deeply punctured with a few faint traces of striae near the suture and a bright orange round spot about the middle near the side; antennæ black. Length .4 inch; 10 mm.

California and Oregon. This species has become quite frequent in collections within the last two years. It is quite distinct from *T. ornatus* by the prothorax more convex, less constricted in front, less narrow behind, punctured and not shining. It is in these respects more allied to *T. Nutalli* Kirby, and may perhaps be an extreme variation of this species. Until intermediate forms occur it will be better to distinguish it by a separate name.

**LEBASIELLA** Spin.

**L. maculicollis.**—Dark blue, clothed with erect black hairs; prothorax a little longer than wide, oval, convex, finely and sparsely punctured, shining, red with a large discoidal black spot reaching the tip but not the base; elytra coarsely and thickly punctured. Length .2 inch; 5 mm.

Mariposa, California; Dr. A. Thevenet. More elongate than *L. janthina* and quite distinct by the color of the prothorax which is longer and less punctured. The antennæ are testaceous with the last four joints black; the legs seem to be brown.

**HEDOBIA** Latr.

**H. granosa.**—Dark brown, clothed with coarse cinereous pubescence, becoming brownish at the middle of the prothorax, which is compressed and elevated at the middle near the base; elytra densely granulate-punctate with scattered distant, small, smooth granules; behind the middle there is on each elytron a small angulated spot with less dense pubescence; scutellum very densely pubescent. Length .17 inch; 4 mm.

California. The prothoracic elevation is suddenly declivous and almost perpendicular behind.

**XESTORIUM** Motsch.

**X. affine.**—Elongate, blackish-brown, very densely and finely punctulate, clothed with yellowish-brown short pubescence, (which in well preserved specimens is probably uniform), disc of prothorax not channelled, sides not strongly flattened. Length .24 inch; 6 mm.

Vancouver and California. Resembles in form *X. tessellatum*, but quite different by the finer punctuation, the less broadly flattened sides of the prothorax, and by the pubescence being much finer and not arranged in tufts; the last three joints of the antennæ are only one-half longer and wider than the 8th joint, and the 2d—8th are much more slender than in *X. tessellatum*.

Another species of this genus was given me by Mr. E. P. Austin, which may be here added, in order to avoid multiplication of references.

**X. squalidum.**—Blackish-brown, very densely granulato-punctate, irregularly clothed with spots of yellowish-brown pubescence; prothorax not channelled, sides widely margined, last joints of antennæ as long as the 6—8 united, and about twice as wide as the 8th. Length .19 inch; 4.6 mm.

Providence, Rhode Island; two specimens. Much smaller than *X. tessellatum*, but similarly punctured and pubescent; the prothorax is, however, not at all channelled and the last joints of the antennæ are much larger.

**VRILLETTA**, n. g. (*Anobiini*.)

The front coxæ in this genus are contiguous and the prothorax excavated beneath for the reception of the head, and the antennæ 11-jointed, in repose received under the head, as in the other members of the group Xyletini (Lec. Proc. Acad. Nat. Sc. Phila., 1865, 237); the mesosternum is not advanced between the middle coxæ, but is as in Xyletinus. It differs, however, conspicuously from that genus by the antennæ.

These organs have the 1st joint of moderate size somewhat dilated, about two and a half times longer than wide; 2d ovate, as long as wide; 3—8 triangular, broader and gradually transverse in ♂ forming an acutely serrate funiculus; 9—11 longer, flat, each as long as the three of the preceding ones. The elytra are striate as in Xyletinus, with a long scutellar, ten dorsal and two short lateral striæ occupying the post-humeral expansion of the elytra, which is as well marked as in Xyletinus; the tip is feebly truncate and broadly rounded.

**V. Murrayi.**—Elongate, cylindrical, black, covered with very fine short cinereous pubescence; prothorax ferruginous with a broad black apical band, side margin broadly reflexed, disc convex, base margined each side near the hind angles, which are rounded; elytra with fine impressed scarcely punctured striæ, each with a ferruginous spot in front of the middle. Length .32 inch; 8 mm.

One ♂, California, given me by Mr. A. Murray. The prothorax is finely punctured and the interspaces of the elytra nearly flat.

**V. expansa.**—Blackish-brown, elongate, cylindrical, covered with fine short sericeous pubescence; prothorax feebly channelled, with side margin very widely reflexed, extending upon the sides of the base, disc convex finely punctured; elytra with the striæ fine, but deeper and more distinctly punctured.



tured and more oblique towards the base, tip more broadly subtruncate and rounded. Length .25 inch; 6 mm.

California; Mr. Crotch.

**V. convexa.**—Blackish-brown, elongate cylindrical, covered with fine sericeous pubescence; prothorax more distinctly punctured, convex, side margin much narrower; elytra with the striæ deeper, distinctly punctured, more oblique towards the base, interspaces convex. Length .28 inch; 7 mm.

California; Mr. Ulke and Dr. Thevenet. Differs from the two preceding by the narrower side margin of the prothorax and more convex elytral interspaces. One specimen has the elytra testaceous with dusky sides; it is probably not quite mature.

**EUCERATOCERUS**, n. g. (*Ptilinini*.)

Body cylindrical, clothed with fine subsericeous pubescence, very finely punctulate, elytra with very indistinct fine striæ. Head rounded, not received into the prothorax beneath, eyes rather large, finely granulated, not very prominent; palpi rather long, as in *Ptilinus*, but a little stouter, last joint elongate oval; antennæ with the 1st joint nearly as long as the 3d, 2d small, 3d and following subequal, about three times as long as wide, each with an oblique basal process longer and as broad as the joint itself, except that of the 2d, which is shorter and broader. Legs slender, tarsi longer than the tibiæ, 1st and 2d joints long, 3d and 4th small, 5th as long as the two preceding, claws small, distant.

A singular genus, closely allied to *Ptilinus*, differing chiefly by the form of the antennæ, the larger and less prominent eyes, and the longer and more slender tarsi.

**E. Hornii.**—Cylindrical, elongate, dark piceous, clothed with fine gray pubescence producing a leaden lustre; elytra with very fine indistinct punctulate striæ; antennæ and legs a little less dark in color. Length .25 inch; 4 mm.

One specimen, Texas; Mr. Belfrage. The antennæ are more than half the length of the body, the 10th and 11th joints are unfortunately broken off.

It gives me great pleasure in the name of this very interesting addition to the fauna, to express my appreciation of the excellent labors of my friend, Dr. G. H. Horn, in investigating the Coleoptera of the United States.

**POLYCAON** Lap.

**P. plicatus.**—Black, shining, thinly clothed with long erect yellowish hairs; head large, very densely and finely granulato-punctate, granules be-

coming less dense behind; prothorax as wide as long, convex, finely punctured, slightly narrowed behind, sides nearly straight, disc transversely impressed and feebly channelled; elytra very coarsely and sparsely punctured, each with a series of short very deep oblique grooves midway between the suture and side margin, posterior declivity oblique, flat, smooth, strongly margined with an elevated rim, suture also elevated behind; abdomen ferruginous, densely pubescent; labrum fringed with bright fulvous hair. Length .48 inch; 12 mm.

One specimen, Texas; Mr. Belfrage. Very distinct by the peculiar sculpture of the elytra. The grooves extend about one-fourth the width of the elytra, and are wider than the interspaces between them, and very deep; they are from twelve to fifteen in number; the posterior declivity of the elytra is margined for almost its entire length, while in *P. exesus* the margin extends about one-half the length of the slope, forming only a semicircle with that of the opposite side.

**P. obliquus.**—Black, thinly clothed with long erect yellowish hairs; head large, granulate; prothorax densely punctured, convex, feebly channelled, slightly narrowed behind, sides straight, rounded near the tip; elytra coarsely punctured, posterior declivity strongly margined for two-thirds the length, and suture elevated behind. Length .45 inch; 11.5 mm.

One specimen, Texas; Mr. Belfrage. Allied to *P. exesus*, with the punctures of the elytra less coarse, not arranged in rows and with the margin of the posterior declivity much longer, forming about two-thirds of an ellipse; the punctures also become smaller towards the tip.

### PHYMATODES Muls.

**P. nitidus.**—Black, very shining, sparsely punctured, thinly clothed with long erect hairs; elytra with two transverse ivory-white slightly elevated fasciæ; base of elytra, legs and antennæ more or less brown; joints 1—6 of the latter with flying hairs. Length .24 inch; 6 mm.

California. The eyes are deeply emarginate, though less so than in *P. decussatus*. This species differs remarkably from all others in our fauna by the highly polished surface and sparse punctuation.

### HYBODERA Lec.

**H. debilis.**—Blackish, finely punctulate and clothed with fine prostrate pubescence with two patches of silvery lustre, one oblique near the base, the other transverse behind the middle; prothorax longer than wide, lateral and dorsal tubercles very feebly developed. Length .25 inch; 6 mm.

California. Smaller than *H. tuberculata* Lec. (New Spec., 191), and more slender, having the general proportions of *Gracilia pyg-*

*maca*; the thoracic tubercles are not prominent, the antennæ of the ♀ are as long as the body; of the ♂ a little longer.

Larger series of specimens will probably prove that this is only a badly developed form of the species above mentioned. For the present, however, it is more prudent to retain it as distinct.

### XYLOTRECHUS Chevr.

**X. planifrons.**—Black, finely pubescent; the following parts clothed with bright yellow hair; front except a narrow stripe; slender occipital band, apical and basal margins of prothorax, scutellum, transverse sub-basal spot, transverse band in front of the middle, extending along the suture nearly to the scutellum; transverse band about one-third from the tip, and broad apical margin; beneath with lateral yellow spots on each thoracic segment; abdomen with broad bands of yellow hair; antennæ and legs brown; frontal carinæ obsolete. Length 7.5–13 mm.

California. Very similar in appearance to *X. insignis* Lec., but smaller, with the sides of the prothorax moderately and regularly rounded, not constricted behind; the subbasal spot of the elytra is not oblique but placed transversely; the prothorax and anterior part of the elytra as usual is clothed with long erect hairs. What especially distinguishes this species is that the usual frontal carinæ are obsolete and represented by a scarcely perceptible and very small flat callus. The front is elongated and flat as in other *Xylotrechus*, or I should be disposed to refer the species to *Clytus*; the maculation of the elytra is not very unlike that observed in *C. marginicollis*. It also agrees with that species and differs from the *Xylotrechi*, in having the yellow hair confined to the scutellum and not extending to the elytra.

### TOXOTUS Serv.

**T. virgatus.**—Slender, black, finely densely sericeous pubescent, lateral tubercles of prothorax large obtusely rounded, constrictions strongly marked; elytra with the pubescence transverse; testaceous, suture, discoidal stripe and side margin blackish, tip obliquely subtruncate; abdomen of the ♂ ferruginous. Length 13 mm.

Oregon, Vancouver and British Columbia. This species might be mistaken for a variety either of *vittiger* or *vestitus*, but on comparison with the latter, which it resembles in the hairs of the elytra lying transversely, the constrictions of the prothorax are deeper and the lateral tubercle more prominent; in comparison with the former, the head is less narrowed behind, the lateral tubercle of the prothorax is larger and more obtuse, and the pubescence of the elytra is different, the discoidal vitta is also narrower, confined to the upper plane of the

elytra and the lateral space between it and the margin is ferruginous. The antennæ in ♂ are stout and as long as the body; in the ♀ more slender and a little more than half as long; the abdomen is ferruginous in the former, blackish with silvery pubescence in the latter, as in *T. vestitus*.

### STRANGALIA Serv.

**S. delicata.**—Elongate, black; elytra testaceous, shining, sparsely punctured, with the scutellar margin, and a short basal vitta blackish; tips dehiscent, rounded; abdomen and legs ferruginous, tarsi dusky. Length 10—12 mm.

California. The prothorax is more sinuate on the sides, and the hind angles less prolonged than in our other species; the form is as slender as in the male of any species and is scarcely less so in the ♀ than in the ♂. The antennæ have no sensitive spaces and the last ventral segment of the ♂ is not excavated but merely feebly impressed and broadly emarginate at tip. The antennæ are inserted on a level with the front margin of the eyes as in all our other species.

### LEPTURA Linn.

**L. rhodopus.**—Elongate, black, thinly and finely pubescent, thorax densely not finely punctured, longer than wide, gradually narrowed in front, feebly rounded on the sides, hind angles small acute; elytra parallel, coarsely punctured, tip subtruncate; feet bright ferruginous. Length 6.5 mm.

California. Allied to *subargentata*, *rufibasis*, etc., but the prothorax is less finely punctured.

### OBEREA Muls.

**O. quadricallosa.**—Leaden-black, clothed with fine cinereous pubescence; prothorax yellow with four elevated black tubercles, the outer ones being nearer the base, a little wider than long, sparsely but coarsely punctured, disc elevated at the middle near the base; elytra coarsely punctured, with two elevated lines, basal margin yellow extending a short distance along the suture and side margin, tip rounded; legs and abdomen yellow, 1st and 2d ventral segments each with a broad blackish band, tips of tarsi black. Length .65 inch; 11 mm.

♂.—With the last ventral segment broadly concave and emarginate; last dorsal segment projecting beyond the pygidium, which is not retuse, but truncate and subemarginate.

♀.—With the last ventral channelled and less concave; pygidium retuse and prominent just in front of the tip, closely applied to the last ventral.

Western part of California and Nevada. In one specimen three ventral segments are dark, leaving only the 4th and 5th yellow. The claws in this species are broadly appendiculate at base and the elytra are rounded at the tip as in *O. Schaumi*, to which it is closely allied. It differs, however, by the prothorax wider, more rounded on the

sides, with the callosities more prominent and not marked with a large puncture as in that species; the 1st joint of the antennæ is also a little longer.

### STEREOPALPUS Ferté.

**S. pruinosis.**—Dark lead-colored, clothed with fine cinereous pubescence; prothorax campanulate, very densely and finely punctulate, finely channelled, less convex than usual; elytra more finely punctured than in the other species; thighs frequently yellow, with the tips black. Length .28—.38 inch; 7—9.5 mm.

California, abundant; Mr. Croteh. Of the same form as the Eastern species, but with the prothorax less convex and the elytra more finely punctured.

### EURYGENUS Ferté.

**Eu. campanulatus.**—Black, with a gray metallic lustre, clothed with half erect pubescence; prothorax scarcely longer than wide, campanulate, deeply channelled, strongly constricted at tip, sides suddenly rounded before the middle, then narrowed and nearly parallel, base margined, disc less convex than usual, very densely punctulate, and with scattered large punctures; elytra strongly and thickly punctured, marked with round spots of cinereous pubescence; 2d joint of antennæ a little shorter than the 3d. Length .30 inch; 7.5 mm.

Vancouver; Messrs. Matthews, four specimens. Differs from *E. constrictus* by more robust form and the absence of very long scattered erect hairs, and from all other species by the prothorax being broader and more suddenly rounded in front of the middle. The 2d joint of the antennæ is also comparatively longer, being but little shorter than the 3d.

### EUSTROPHUS Ill.

**E. impressicollis.**—Elongate oval, equally rounded at each end, not very convex, brown, thinly clothed with very fine cinereous pubescence; finely and very densely punctulate, prothorax wider than long, semicircularly rounded in front, feebly bisinuate and finely margined at base, with a basal impression each side, which is marked by a longitudinal line. antennæ scarcely reaching the base of the prothorax, joints 6—10 gradually but slightly wider. Length 6.5 mm.

Vancouver Island. This species has a perfectly regular elongate elliptical form and is less convex than any other known to me. It is also easily distinguished by the longer basal impressions of the prothorax and by the last joint of the maxillary palpi being broader, and more obliquely truncate; the spurs of the hind tibiæ are comparatively a little smaller and the elytra are not striate.

**BLAPSTINUS** Latr.

**B. latifrons.** — Oval, rather elongate, moderately convex, dull black, densely punctured, finely pubescent; front wider before the eyes and distinctly angulated at the sides; prothorax a little wider than the elytra, twice as wide as long, narrower in front, much rounded on the sides, base sinuate towards the sides and broadly truncate at the middle; hind angles obtuse, well defined; disc broadly convex, sides widely depressed. Elytra a little narrower than prothorax, elongate, sides parallel, tip rounded, striæ fine, finely punctured, not deeply impressed, interspaces nearly flat. L. 9.7 mm.; .38 inch.

One specimen, Vancouver Island; Mr. Crotch. Near *B. sordidus*, but larger, narrower and distinct by the clypeus being angulated at the sides, the prothorax narrowed towards the base, and more strongly rounded on the sides, and by the interspaces of the elytra not alternately more convex.

**ASCLERA** Schmidt.

**A. discolor.** — Black, finely pubescent; mouth, prothorax and elytra dirty yellow; prothorax very finely punctulate, narrowed and constricted behind, disc with two very large excavations and a smaller one near the base; elytra densely and finely punctured, with the usual 3 elevated lines, the inner one less distinct; dusky towards the tip; legs dusky, tip of thighs and base of tibiæ yellow. Length .27 inch; 7 mm.

California; Mr. Crotch, eight specimens. This species precisely resembles *A. excavata* and *nigra* Lec., differing only in color.

**RHINA** Kirby.

**R. frontalis.** — Black, shining; head sparsely coarsely punctured, beak straight, as long as the prothorax, coarsely and somewhat densely punctured, obsolete sulcate and sparsely setose each side; frontal fovea distinct; eyes nearly contiguous beneath, but widely separated above; prothorax a little longer than wide, narrowed in front, and broadly rounded at the sides, apex tubularly constricted, disc coarsely but not densely punctured, base nearly straight, margined; elytra cylindrical with rounded humeri, sides parallel, apex rounded, striæ finely punctured, interspaces flat, with a few distant small punctures; prothorax with the flanks and under surface densely and coarsely punctured, trunk and abdomen sparsely punctured, front tibiæ with 5—6 small teeth on the inner edge. Length .32—.45 inch; 8—11 mm.

Mojave Desert, under bark of Yucca; Mr. Crotch. This species differs from the others by the eyes not extending on the upper surface of the head, so that the front is broad and convex. The appearance is that of a gigantic Cossonide. The pygidium is almost covered by the elytra, but projects a little as in *R. barbirostris*.

Further study may require this to be separated as a distinct genus.

**CRYPHALUS** Er. (*emend.*)

**C. carinulatus.** — Cylindrical, less elongate than usual, black or brown, thinly clothed with long erect hairs; prothorax one-third longer than wide, sides parallel, apex rounded, hind angles obtuse and rounded, disc rough in



front, as usual with transverse rows of sharp granules, punctured behind, with a nearly smooth space each side; dorsal line smooth, narrow and slightly elevated; behind the roughened part is a broad shallow transverse impression; elytra with approximate rows of rather distant punctures, posterior declivity deeply sulcate next the suture, outer edge of declivity with three small denticles, between which and the suture are two larger and more prominent acute teeth; front tibiæ with 4—5 distant acute teeth. Length .08—.12 inch; 2—3 mm.

Lake Tahoe, Calaveras and Mojave region, California; Mr. Crotch; Vancouver Island; Mr. Matthews. This species is allied to *C. nitidulus*, but is larger and less elongate. It is easily distinguished by the dorsal line of the prothorax being feebly elevated, and therefore subcarinate, while in *nitidulus* and *atratus* the line is broader and flat. The teeth of the posterior declivity of the elytra are more developed and placed in the same manner as in certain species of *Xyloborus*, but the club of the antennæ is not at all as in that genus; the transverse sutures are quite distinct and convex forwards, precisely as in *C. nitidulus*. In the black specimens the shank of the antennæ and the tarsi are brown.

✓ **C. puncticollis.**—Cylindrical, black or brown; prothorax nearly one-half longer than wide, in front with transverse rows of acute granules, behind sparsely and strongly punctured; elytra with rows of rather close set punctures, rows not approximate; posterior declivity deeply and broadly sulcate, outer edge of declivity obtuse; denticles very small, scarcely perceptible. Length .05—.06 inch; 1.2—1.5 mm.

Calaveras, California; one specimen, Mr. Crotch; Texas; Mr. Belfrage. Also allied to *C. nitidulus*, but much smaller, with the elytral rows of punctures finer and more distant, and the denticles of the posterior declivity small and inconspicuous.

✓ **C. digestus.**—Black, shining, thinly clothed with fine erect hair; prothorax one-third longer than wide, rounded in front, rough with acute tubercles and sparsely pubescent, disc behind strongly not densely punctured, with smooth median spaces, and a vague transverse impression behind the rough portion; elytra with somewhat irregular rows of moderate sized punctures, sutural grooves extending from the middle to the tip, posterior declivity convex, nearly smooth, with the suture elevated, and the furrow composed only of the sutural stria. Length .70 inch; 1.7 mm.

Mojave Desert; Mr. Crotch. Allied to *C. puberulus* Lec., but with the punctures of the elytra more distinctly arranged in rows; and the pubescence finer. Rubbed specimens may appear to resemble *atratus* and *nitidulus*, but the elytral punctures are much smaller, the rows more approximate, and the groove of the posterior declivity much narrower.



**XYLEBORUS** Eichhoff.

**X. vicinus.**—Cylindrical, black or brown, antennæ and feet dark ferruginous: prothorax longer than wide, broadly rounded on the sides, gradually narrowed in front and rounded at tip, punctured behind, granulate and hairy in front; elytra with distinct rows of punctures, interspaces flat with single rows of more distant punctures, sparsely clothed with long erect hair; posterior declivity concave, edge of concavity with several small denticles and two large ones. Length .10 inch; 2.5 mm.

British Columbia; Mr. Crotch. Allied to *X. caelatus* Eichh., but the elytral punctures are smaller and more distant, and the interspaces wider and flat. The denticles of the posterior declivity are similarly arranged and the two largest are rather within than upon the margin of the declivity. The tibiæ are coarsely and irregularly serrate as in *caelatus*.

**X. hamatus.**—Black, rather robust, with a few erect hairs; prothorax scarcely longer than wide, nearly square, with the apex rounded as usual, disc punctured behind, with a narrow smooth dorsal space, punctures before the middle roughly and acutely granulate; elytra with rows of distant punctures, sutural groove deep, broader behind, and expanded into the very deep posterior excavation, which is smooth and sharply margined; near the upper part of the declivity on each side is a long spine bent downwards at the end, and near the tip is a small acute tooth. Length .12—.16 inch; 3—4 mm.

Mojave Desert, California; Mr. Crotch. I observe no sexual differences in the individuals before me. This species resembles *X. plagiatus* Lee., ♂ in the singular armature of the elytra, but is much larger and otherwise quite different.

Several species of *Xyleborus* are in Mr. Crotch's collection, but are too closely allied to those already described to be properly mentioned on the present occasion.

**TOMICUS** Latr.

**T. latidens.**—Cylindrical, brown, shining, clothed with long erect yellow hairs, prothorax more parallel on the sides than usual, not much longer than wide, more broadly rounded in front, hind angles rounded; disc sculptured as in *T. pini*, more strongly impressed each side near the middle; elytral striæ deep, closely punctured, interspaces each with a row of punctures; posterior declivity concave as usual, subsutural denticle small acute, next tooth broad, composed of the confluence of three cusps, of which the upper one is least developed and the middle one most prominent; following this is a long acute tooth, and then the usual apical acute margin. Length .12 inch, 3 mm.

California; Mr. Crotch. Smaller than *T. pini*, with a shorter prothorax and very different elytral sculpture and armature.